

DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

SAM. L. ROGERS, DIRECTOR

CENSUS OF WAR COMMODITIES

IRON AND STEEL PRODUCTS

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CONTENTS

	Page		Page
Explanation of statistics.....	3	TABLE IV—Continued.	
Diagrams showing stocks, consumption, and requirements.....	4	G.—Manufacturers of motor vehicles—Automobiles, trucks, and accessories.....	11
TABLE I.—Stocks on hand or in transit, September 1, 1918.....	5	H.—Manufacturers of bolts, nuts, rivets, nails, screws, etc.	11
TABLE II.—Consumption, January 1 to June 30, 1918.....	6	I.—Manufacturers of electric and electric-power machinery, apparatus, and supplies.....	12
TABLE III.—Estimated requirements, July 1 to December 31, 1918.....	8	J.—Manufacturers of engines, pumps, compressors, etc., boilers, and tanks.....	12
TABLE IV.—Summary—Stocks, consumption and requirements:		K.—Manufacturers of machine tools.....	12
A.—Manufacturers of the specified products—Steel works, rolling mills, etc.....	10	L.—Manufacturers of tools and hardware.....	12
B.—Wholesalers, jobbers, and dealers.....	10	M.—Manufacturers of machinery other than the foregoing.....	13
C.—Railroad companies.....	10	N.—Manufacturers of munitions and ordnance.....	13
D.—Shipyards.....	10	O.—Fabrications—Structural and architectural ironwork.....	13
E.—War Department.....	11	P.—Miscellaneous.....	13
F.—Manufacturers of agricultural implements and vehicles other than motor vehicles.....	11	Per cent distribution.....	14
		Schedule used in making the canvass.....	15



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NOTE.

Reports received after completion of tabulation and not included in the tables, comprising: Railroad companies, 13; steel works and rolling mills, 1; shipyards, 2; manufacturers of agricultural implements, etc., 3; manufacturers of motor vehicles, etc., 1; manufacturers of engines, pumps, etc., 1; manufacturers of machinery not elsewhere specified, 4; manufacturers of munitions and ordnance, 2; and fabrications, 1—Total, 28.

(Tons of 2,000 pounds.)

CLASS OF STEEL.	STOCKS, SEPT. 1, 1918.			CONSUMPTION AND REQUIREMENTS, 1918.					
	Total.	Railroad com- panies.	Other.	Total.	Railroad com- panies.	Other.	For Government contracts.		
							Amount.	Per cent.	
Ingots, blooms, billets, and slabs.....	2,034	80	1,954	148,830	155	148,675	111,055	75.3	
Skelp, flue, etc.....	281	281		116	116				
Wire rods.....	452	1	451	31,603	3	31,600	23,700	75.0	
Plates ($\frac{1}{4}$ inch and over).....	3,331	557	2,774	7,156	1,098	6,058	2,933	41.0	
Sheets (under $\frac{1}{4}$ inch).....	293	208	85	533	385	148	22	4.2	
Merchant bars and shapes under 3 inches.....	3,479	2,106	1,373	11,634	7,262	4,372	2,086	17.9	
Long angle splice bars.....	330	300	30	443	40	403			
Structural shapes.....	1,881	88	1,793	9,779	57	9,722	970	9.9	
Seamless tubes.....	587	329	258	931	404	527	515	55.3	
Tubular products other than seamless tubes.....	686	377	309	582	261	321	25	4.3	
Rails:									
50 pounds and over.....	10,787	10,697	90	14,096	14,088	8			
Under 50 pounds.....	1,001	1,000	1	805	800	5			
Rail joints, fastenings, and tie-plates.....	3,058	3,056	2	12,052	12,052				
Wire products.....	1,926	203	1,723	15,043	479	14,564	10,814	71.9	
Tool steel.....	144	28	116	216	33	183	160	74.1	
All other finished, rolled, and drawn iron and steel.....	2,792	314	2,478	6,497	542	5,955	2,113	32.5	
Total.....	33,062	19,625	13,437	260,316	37,775	222,541	154,393	59.3	

EXPLANATION OF STATISTICS.

The accompanying tables present the statistics for Iron and Steel Products as reported by 10,494 establishments. The canvass included the manufacturers of the specified classes of iron and steel products; the wholesalers, dealers, jobbers, and supply houses carrying stocks; and manufacturers using the products as material in further processes of manufacture, including railroads and public service corporations that operate construction and repair shops and carry stocks for the upkeep of their properties, systems, and lines. The statistics include the consumption by the producers—that is, by the rolling mills, the wire-drawing mills, forging shops, etc.—of the specified classes of products in further processes of manufacture.

ESTABLISHMENTS.

The number of establishments is the number of reports received and not the number of individual plants, shops, or works. Thus, the United States Steel Corporation made one report covering 148 plants, mills, works, shops, and warehouses; the United States Railroad Administration, one report for the various corporations commonly known as Pennsylvania Lines West of Pittsburgh and one report for the Eastern Lines; the War Department, one report for all shops and works under the control of the Corps of Engineers. The report for the Corps of Engineers covers stocks only, data for consumption and requirements not being furnished. Separate reports were furnished for the arsenals with full data. The only report received from the Navy Department was for the Mare Island Navy Yard, Cal. This has been included with the data for the War Department. Establishments reporting less than half a ton of steel on hand or consumed have not been included in the tabulation. Approximately 850 reports of this character were received.

TABLES.

The statistics are presented in four tables as follows:

TABLE I shows stocks on hand or in transit to the reporting establishment on September 1, 1918.

TABLE II presents the statistics of consumption for the first half of the year, January 1 to June 30, 1918.

TABLE III presents the statistics for requirements for the last half of the year, July 1 to December 31, 1918.

TABLE IV is a summary showing stocks and consumption—requirement data for the year for all establishments and for the several groups of establishments, with per cent of distribution.

A graphic presentation of the statistics by bar diagrams precedes the tables and a copy of the schedule used is shown at the end of this bulletin.

CLASSIFICATION.

The information given in answer to Inquiry III of the schedule has been used as a basis of classification according to chief products.

The reports have been classified under 16 groups as follows:

A.—*The producing establishments designated as "Manufacturers of the specified products—Steel works, rolling mills, etc."* This group includes also tube and wire-drawing mills, forging shops, and tin-plate mills. These establishments reported stocks on hand, September 1, of the various classes of steel, including ingots, billets, bars, etc., in process, stocks of the finished rolled products, and stocks of products of a higher degree of manufacture called for by the schedule, such as tubular products and wire. The producing establishments reported under Inquiry II of the schedule only the quantities of the specified classes of steel consumed in or required for their own establishment in further processes of manufacture; structural steel in fabrications, plates fabricated for ship and other constructions, horseshoe bars in the manufacture of horseshoes, etc.

B.—*Wholesalers, jobbers, and dealers.*—This class reported stocks only.

C.—*Railroad companies, both steam and electric.*—These companies reported stocks on hand for use in their repair shops and rails and track material, and consumption and requirements for repairs of rolling stock, track repairs, and replacements and new construction.

D.—*Shipyards.*—The shipbuilding companies reported the stocks on hand of the specified products in unfabricated forms, and consumption and requirement data for same. Supplies of plates and structural steel received in fabricated forms ready for assembling

were not included, these being the products of the mills that fashioned them ready for erection and are included in the reports for such establishments.

E.—*War Department.*—These reports include the statistics for the arsenals and the shops and works under the control of the Corps of Engineers, the latter, however, being confined to stocks, as before stated. There are also included the statistics for the Mare Island Navy Yard.

The remaining groups comprise the manufacturing establishments that use iron and steel materials of the specified classes. The establishments are classified according to their chief products, although in many cases they reported products which belong under another classification, shown, for example, by a large consumption of projectile steel by establishments engaged primarily in the manufacture of bolts, nuts, etc., and machinery, and projectile steel requirements for establishments included in the "Motor vehicle" and "Miscellaneous" groups.

F.—*Manufacturers of agricultural implements and vehicles other than motor vehicles.*

G.—*Manufacturers of motor vehicles—Automobiles, trucks, and accessories.*

H.—*Manufacturers of bolts, nuts, rivets, nails, screws, etc.*

I.—*Manufacturers of electric and electric-power machinery, apparatus, and supplies.*

J.—*Manufacturers of engines, pumps, compressors, etc., boilers, and tanks.*

K.—*Manufacturers of machine tools.*

L.—*Manufacturers of tools and hardware.*

M.—*Manufacturers of machinery other than the foregoing.*

N.—*Manufacturers of munitions and ordnance.*

O.—*Fabrications—Structural and architectural ironwork.*

P.—*Miscellaneous, or manufacturers of commodities not elsewhere provided for.*

DURATION OF SUPPLY.

On September 1, 1918, there was, in the aggregate, 8,589,000 tons of iron and steel material of the various classes on hand, not including scrap. The figures for consumption and requirements, taken as representing the year's consumption, aggregate 31,690,000 tons. These figures indicate that the stocks in the country, as of said date, were equal to approximately three and one-fourth months' supply for all classes of establishments.

The following tabular statement gives, in terms of months' supply, the ratio between stocks and consumption and requirements for the year—(1) for the various classes of steel, and (2) for the industrial groups:

		Months.	INDUSTRIAL GROUPS.		Months.
All stocks.....		3½	A.—Manufacturers of the specified products—Steel works, rolling mills, etc.....		2½
CLASS OF STEEL.			C.—Railroad companies.....		6½
1. Ingots, blooms, billets, and slabs.....	2		D.—Shipyards.....		3½
2. Projectile steel.....	2½		E.—War Department.....		
3. Sheet bars and tin-plate bars....	1½		F.—Manufacturers of agricultural implements and vehicles other than motor vehicles.....		4½
4. Skelp, flue, etc.....	2½		G.—Manufacturers of motor vehicles—Automobiles, trucks, and accessories.....		2½
5. Wire rods.....	1½		H.—Manufacturers of bolts, nuts, rivets, nails, screws, etc.....		3
6. Plates.....	3½		I.—Manufacturers of electric and electric-power machinery, apparatus, and supplies.....		5½
7. Sheets.....	4½		J.—Manufacturers of engines, pumps, compressors, etc., boilers, and tanks.....		2½
8. Merchant bars and shapes under 3 inches.....	4		K.—Manufacturers of machine tools.....		5
9. Reinforced-concrete bars ¹	14		L.—Manufacturers of tools and hardware.....		4
10. Long angle splice bars.....	2½		M.—Manufacturers of machinery other than the foregoing.....		3
11. Structural shapes.....	3½		N.—Manufacturers of munitions and ordnance.....		3½
12. Seamless tubes.....	9		O.—Fabrications—Structural and architectural ironwork.....		2½
13. Tubular products other than seamless tubes ¹	12½		P.—Miscellaneous.....		3½
14. Rails.....	6½				
15. Rail joints, fastenings, and tie-plates.....	11½				
16. Tin plate.....	4				
17. Barbed wire ¹	1½				
18. Wire rope ¹	10½				
19. Other wire products ¹	3½				
20. Hoops, bands, and cotton ties ¹	3½				
21. Tool steel.....	8				
22. Other finished, rolled, and drawn iron and steel.....	4				

¹ Not comparable—largely used by consumers not canvassed.

² Not comparable—consumption and requirements not fully reported.

CENSUS OF WAR COMMODITIES.

STOCKS, SEPT. 1, 1918; CONSUMPTION AND REQUIREMENTS, 1918.

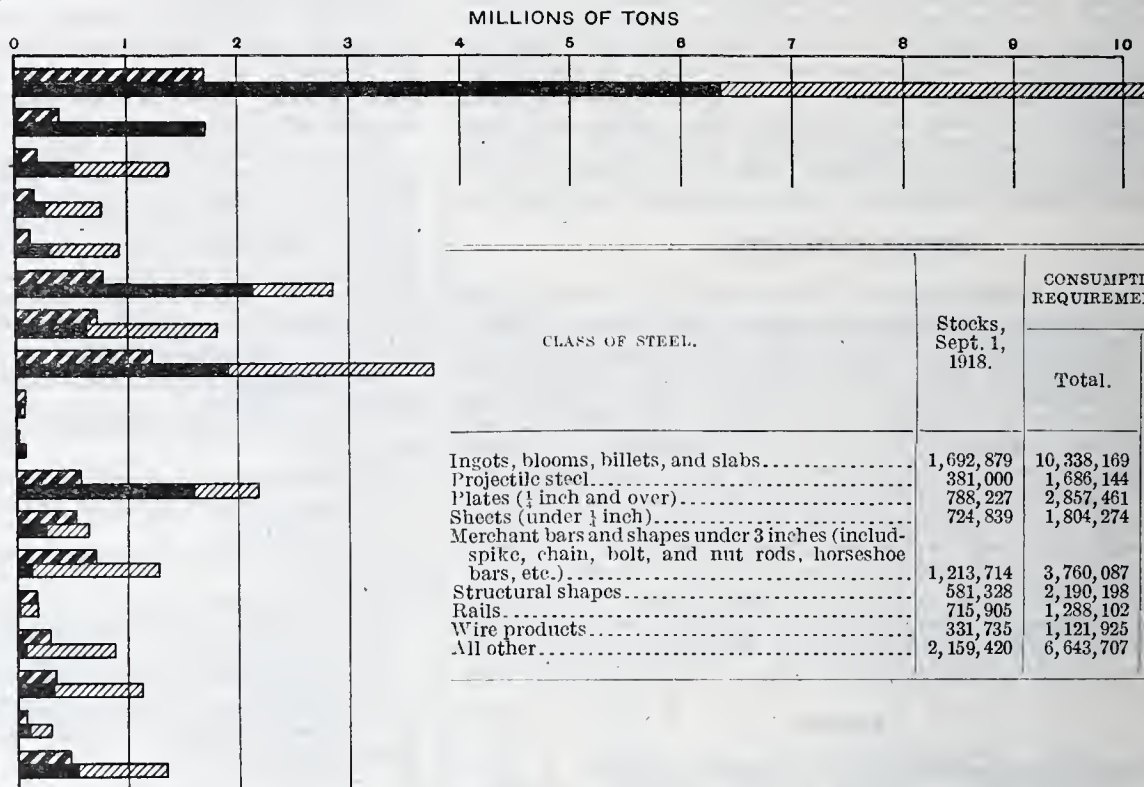


TOTAL.

Stocks, Sept. 1, 1918	8,589,047
Consumption and requirements, 1918:	
For Government contracts	16,922,899
Other	14,767,168

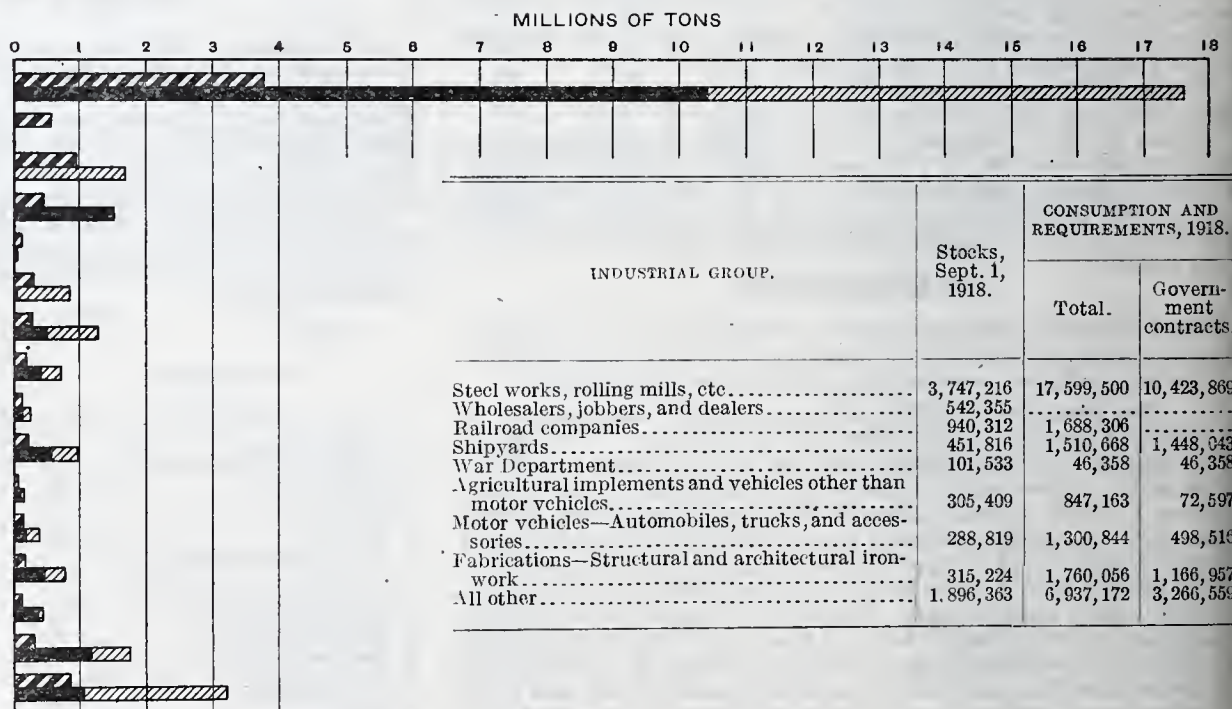
CLASS OF STEEL.

1. Ingots, billets, etc.....
2. Projectile steel.....
3. Sheet and tinplate-bars....
4. Skelp, flue, etc.....
5. Wire rods.....
6. Plates.....
7. Sheets.....
8. Merchant bars and shapes..
9. Reinforced-concrete bars..
10. Long angle splice bars....
11. Structural shapes.....
- 12-13. Tubular products.....
14. Rails.....
15. Rail joints, etc.....
16. Tin-plate.....
- 17-19. Wire products.....
20. Hoops, bands, and cotton ties.....
- 21-22. Tool steel, and all other.....



INDUSTRIAL GROUPS.

- A.—Steel works, rolling mills, etc.....
- B.—Dealers.....
- C.—Railroad companies.....
- D.—Shipyards.....
- E.—War Department.....
- F.—Agricultural implements..
- G.—Motor vehicles, etc.....
- H.—Bolts, nuts, etc.....
- I.—Electrical machinery, etc.
- J.—Engines, pumps, etc.....
- K.—Machine tools.....
- L.—Tools and hardware.....
- M.—Other machinery.....
- N.—Munitions and ordnance..
- O.—Fabrications.....
- P.—Miscellaneous.....



STOCKS, SEPT. 1, 1918

CONSUMPTION AND REQUIREMENTS, 1918:

FOR GOVERNMENT CONTRACTS

OTHER

Table 1.—STOCKS ON HAND OR IN TRANSIT, SEPTEMBER 1, 1918.
(Tons of 2,000 pounds.)

CLASS OF STEEL.	Total.	Manufacturers of the specified products—Steel works, rolling mills, etc.	Wholesalers, jobbers, and dealers,	Railroad companies.	Shipyards.	War Department. ¹
Number of establishments.....	10,494	441	942	499	102	10
1. Ingots, blooms, billets, and slabs.....	1,692,879	1,639,943	259	6,233	6,577	5,611
2. Projectile steel.....	381,000	267,118	.....	.....	.....	.....
3. Sheet bars and tin-plate bars.....	190,317	186,646	36	20	.....	.....
4. Skelp, flue, etc.....	179,317	176,202	50	637	.....	.....
5. Wire rods.....	118,398	79,056	799	40	.....	327
6. Plates ($\frac{1}{4}$ inch and over).....	788,227	186,815	29,227	69,272	249,746	12,647
7. Sheets (under $\frac{1}{4}$ inch).....	724,839	147,558	39,301	19,170	7,112	6,576
8. Merchant bars and shapes under 3 inches (including spike, chain, bolt, and nut rods, horseshoe bars, etc.).....	1,213,714	272,843	156,003	93,822	40,013	5,880
9. Reinforced-concrete bars.....	85,952	21,362	22,657	7,426	371	2,428
10. Long angle splice bars.....	17,956	12,279	20	4,024	2	29
11. Structural shapes.....	581,328	151,539	25,937	38,372	135,289	10,109
12. Seamless tubes.....	78,228	11,315	5,688	22,814	668	232
13. Tubular products other than seamless tubes.....	440,333	112,412	171,103	14,868	5,067	1,243
14. Rails:						
50 pounds and over.....	650,256	98,204	5,371	494,935	3,040	21,333
Under 50 pounds.....	65,649	20,644	5,877	4,941	333	18,558
15. Rail joints, fastenings, and tie-plates.....	181,334	24,566	1,133	143,947	141	7,771
16. Tin plate.....	301,950	45,590	10,672	402	5	132
17. Barbed wire.....	10,201	5,062	1,453	1,839	1	1,330
18. Wire rope.....	24,695	7,854	1,810	727	1,312	165
19. Other wire products.....	296,839	163,118	33,399	4,126	96	2,106
20. Hoops, bands, and cotton ties.....	91,912	22,193	10,910	98	29	22
21. Tool steel.....	61,586	19,437	5,599	1,178	519	234
22. All other finished, rolled, and drawn iron and steel.....	412,137	75,460	15,051	11,421	1,495	4,800
TOTAL.....	8,589,047	3,747,216	542,355	940,312	451,816	101,533
23. Scrap iron and steel.....	1,873,988	1,429,554	16,874	145,598	4,823	5,354

MANUFACTURERS CLASSIFIED ACCORDING TO CHIEF PRODUCT.

CLASS OF STEEL.	Agricultural implements and vehicles other than motor vehicles.	Motor vehicles—Automobiles, trucks, and accessories.	Bolts, nuts, rivets, nails, screws, etc.	Electric and electric-power machinery, apparatus, and supplies.	Engines, pumps, compressors, etc., boilers, and tanks.	Machine tools.	Tools and hardware.	Machinery other than the foregoing.	Munitions and ordnance.	Fabrications—Structural and architectural ironwork.	Miscellaneous.
Number of establishments.....	610	590	214	418	629	437	807	1,023	60	636	3,076
1. Ingots, blooms, billets, and slabs..	1,813	1,969	220	1,151	7,263	4,681	2,942	4,935	1,366	2,774	5,142
2. Projectile steel.....	.....	2,866	.....	305	51	190	.....	12,354	83,103	392	14,621
3. Sheet bars and tin-plate bars.....	172	8	.....	59	17	.....	2,004	273	5	79	998
4. Skelp, flue, etc.....	39	.....	759	26	.....	.....	1,413	.....	.....	1	190
5. Wire rods.....	779	1,598	17,491	1,127	257	515	1,916	341	165	935	13,052
6. Plates ($\frac{1}{4}$ inch and over).....	14,978	15,955	181	13,960	50,688	2,443	1,498	17,761	9,216	77,679	36,166
7. Sheets (under $\frac{1}{4}$ inch).....	27,489	85,535	37,644	47,344	55,808	2,946	22,995	17,511	6,470	19,350	180,030
8. Merchant bars and shapes under 3 inches (including spike, chain, bolt, and nut rods, horseshoe bars, etc.).....	175,203	50,651	95,746	21,147	33,740	19,538	51,747	50,561	5,807	43,013	98,000
9. Reinforced-concrete bars.....	30	3,219	30	239	68	1	461	189	46	27,014	411
10. Long angle splice bars.....	50	368	.....	142	44	4	2	127	.....	374	491
11. Structural shapes.....	9,999	8,793	10	6,748	19,826	2,075	576	17,783	3,588	124,943	25,741
12. Seamless tubes.....	1,743	7,258	105	658	14,780	352	73	1,823	335	442	9,942
13. Tubular products other than seamless tubes.....	9,309	13,509	298	5,683	18,819	1,216	3,947	21,212	69	7,852	53,726
14. Rails:											
50 pounds and over.....	4	798	.....	1,096	662	7	.....	738	.....	1,736	22,332
Under 50 pounds.....	55	30	.....	406	73	145	.....	1,043	.....	911	12,633
15. Rail joints, fastenings, and tie-plates.....	4	48	.....	65	3	19	.....	410	20	564	2,643
16. Tin plate.....	218	318	78	111	1,966	30	869	784	3,418	502	236,855
17. Barbed wire.....	8	1	12	.....	41	.....	62	13	.....	60	319
18. Wire rope.....	132	5,922	468	347	82	675	189	667	4	85	4,256
19. Other wire products.....	3,797	5,735	14,962	1,298	1,075	631	6,153	2,956	569	2,099	54,719
20. Hoops, bands, and cotton ties.....	14,350	6,647	1,634	1,102	1,686	106	9,155	941	199	1,050	21,790
21. Tool steel.....	1,292	2,300	1,156	653	490	5,915	8,253	4,744	756	137	8,923
22. All other finished, rolled, and drawn iron and steel.....	43,945	75,291	19,156	13,206	10,487	27,555	18,625	34,573	5,470	3,237	52,365
TOTAL.....	305,409	288,819	189,950	116,873	217,926	69,044	132,880	193,739	120,606	315,224	855,345
23. Scrap iron and steel.....	35,692	13,406	10,023	7,883	46,671	16,433	13,242	29,405	5,355	17,058	76,617

¹ Including United States Navy Yard, Mare Island, Cal.

CENSUS OF WAR COMMODITIES.

Table II.—CONSUMPTION, JANUARY 1 TO JUNE 30, 1918.

(Tons of 2,000 pounds.)

	CLASS OF STEEL.	Total.	Manufacturers of the specified products—Steel works, rolling mills, etc.	Railroad companies.	Shipyards.	War De- partment. ¹
1	1. Ingots, blooms, billets, and slabs.....	4,942,888	4,792,211	6,093	9,039	1,552
2	Used for Government contracts.....	2,883,680	2,759,950		8,951	1,552
3	2. Projectile steel.....	662,752	438,346			
4	Used for Government contracts.....	660,863	436,646			
5	3. Sheet bars and tin-plate bars.....	629,102	626,813	87		
6	Used for Government contracts.....	201,016	200,466			
7	4. Skelp, flue, etc.....	321,586	318,302	304		
8	Used for Government contracts.....	116,783	116,548			
9	5. Wire rods.....	427,733	346,334	40	4	201
10	Used for Government contracts.....	112,919	79,471		4	201
11	6. Plates ($\frac{1}{4}$ inch and over).....	1,145,467	213,970	50,054	315,377	4,054
12	Used for Government contracts.....	748,065	129,437		301,373	4,054
13	7. Sheets (under $\frac{1}{4}$ inch).....	882,843	71,355	16,375	9,524	1,256
14	Used for Government contracts.....	224,693	26,528		8,591	1,256
15	8. Merchant bars and shapes under 3 inches (including spike, chain, bolt, and nut rods, horseshoe bars, etc.).....	1,757,735	600,277	97,628	41,460	1,319
16	Used for Government contracts.....	803,947	358,515		36,932	1,319
17	9. Reinforced-concrete bars.....	30,433	1,064	5,218	574	52
18	Used for Government contracts.....	6,976	103		478	52
19	10. Long angle splice bars.....	40,423	34,232	3,851	73	12
20	Used for Government contracts.....	33,227	32,165		72	12
21	11. Structural shapes.....	932,752	284,686	32,537	134,877	875
22	Used for Government contracts.....	615,207	236,815		124,348	875
23	12. Seamless tubes.....	91,769	19,212	12,556	384	457
24	Used for Government contracts.....	50,269	14,701		309	457
25	13. Tubular products other than seamless tubes.....	200,534	4,366	13,464	5,757	457
26	Used for Government contracts.....	63,954	193		5,017	457
27	14. Rails:					
28	50 pounds and over.....	583,553	56,984	486,270	4,587	1,116
29	Used for Government contracts.....	45,872	22,739		3,156	1,116
30	Under 50 pounds.....	36,142	10,059	3,408	480	13
31	Used for Government contracts.....	22,126	10,006		470	13
32	15. Rail joints, fastenings, and tie-plates.....	91,258	585	87,298	333	15
33	Used for Government contracts.....	2,233	367		185	15
34	16. Tin plate.....	418,193	7,856	460	38	2,976
35	Used for Government contracts.....	26,964	202		38	2,976
36	17. Barbed wire.....	31,409	22,425	1,128	24	12
37	Used for Government contracts.....	11,612	11,239			12
38	18. Wire rope.....	14,881	98	742	2,027	28
39	Used for Government contracts.....	3,114	53		1,880	28
40	19. Other wire products.....	473,666	256,955	2,317	182	36
41	Used for Government contracts.....	97,200	55,920		134	36
42	20. Hoops, bands, and cotton ties.....	146,995	60,525	46	5	1
43	Used for Government contracts.....	43,774	18,063		5	1
44	21. Tool steel.....	44,089	4,708	717	486	293
45	Used for Government contracts.....	25,487	2,971		453	293
46	22. All other finished, rolled, and drawn iron and steel.....	640,659	54,650	17,869	3,875	2,988
47	Used for Government contracts.....	192,143	30,925		3,847	2,988
48	TOTAL.....	14,546,862	8,226,013	838,462	529,106	17,713
49	Used for Government contracts.....	6,992,124	4,544,023		496,243	17,713
50	23. Scrap iron and steel.....	4,453,030	3,876,679	53,813	4,986	4,197
51	Used for Government contracts.....	2,243,474	2,084,682		1,896	4,197

¹ Including United States Navy Yard, Mare Island, Cal.

IRON AND STEEL PRODUCTS.

7

Table II.—CONSUMPTION, JANUARY 1 TO JUNE 30, 1918—Continued.

(Tons of 2,000 pounds.)

MANUFACTURERS CLASSIFIED ACCORDING TO CHIEF PRODUCT.										
Agricultural implements and vehicles other than motor vehicles.	Motor vehicles—Automobiles, trucks, and accessories.	Bolts, nuts, rivets, nails, screws, etc.	Electric and electric-power machinery, apparatus, and supplies.	Engines, pumps, compressors, etc., boilers, and tanks.	Machine tools.	Tools and hardware.	Machinery other than the foregoing.	Munitions and ordnance.	Fabrications—Structural and architectural ironwork.	Miscellaneous.
1,901	3,356	1,251	3,248	18,809	6,005	3,936	8,477	9,553	73,180	4,277
120	1,480	.....	2,410	16,541	5,967	1,373	3,834	8,985	69,929	2,588
8	6	4,250	128	50	45	3	113,811	93,713	2	12,390
.....	6	4,250	128	.....	45	.....	113,750	93,713	.....	12,325
368	4	.....	58	.....	16	12	51	37	142	1,514
.....	1	.....	1	.....	15	1	16	5	11	500
627	.....	503	.....	.....	.....	711	3	.....	.....	1,136
.....	.....	100	.....	.....	.....	94	.....	.....	.....	41
890	2,545	48,718	543	288	422	5,789	451	228	3,630	17,650
74	1,927	18,127	382	47	201	3,481	98	188	1,147	7,571
21,259	28,516	359	10,636	179,403	2,584	2,732	24,146	13,410	190,653	88,314
1,467	17,984	15	6,914	113,747	1,135	1,262	6,133	7,200	128,088	29,256
35,096	247,469	16,665	47,987	75,861	4,285	32,619	28,753	4,291	40,753	250,554
816	39,276	3,380	26,683	27,088	998	11,582	4,585	3,616	15,660	54,634
252,116	70,626	200,659	15,210	61,119	17,064	65,533	68,483	10,927	88,682	166,632
21,868	26,280	118,562	6,854	31,592	9,879	33,317	24,637	7,115	47,331	79,746
227	3,370	40	569	445	75	.....	268	20	18,153	358
13	180	10	59	146	38	.....	39	20	5,781	57
32	473	.....	128	169	27	283	206	1	217	719
.....	188	.....	17	74	25	30	141	1	114	388
9,480	9,800	64	10,036	24,279	2,283	1,458	20,726	5,207	343,918	52,526
461	3,845	4	4,794	15,201	1,097	448	6,621	2,159	199,334	19,205
1,228	9,484	137	441	32,910	376	708	1,675	131	713	11,357
32	4,719	125	231	23,696	131	611	666	35	515	4,041
14,006	1,851	434	8,995	32,637	2,972	5,578	16,830	132	10,399	82,656
521	542	100	2,882	15,871	2,171	1,480	4,670	104	5,903	24,043
.....	1,632	.....	1,140	369	55	.....	681	20	4,150	26,549
.....	1,242	.....	175	220	.....	.....	98	.....	1,655	15,471
41	61	.....	554	40	30	.....	2,010	.....	1,001	18,445
.....	50	.....	356	.....	30	.....	267	.....	502	10,432
.....	232	.....	44	3	5	.....	194	.....	257	2,292
.....	181	.....	13	.....	.....	.....	7	.....	70	1,395
293	2,290	112	148	1,975	49	1,477	953	7,487	2,254	389,825
.....	99	37	125	21	.....	389	187	76	1,195	21,619
191	101	105	.....	125	18	109	49	.....	321	6,801
.....	1	.....	.....	.....	17	100	1	.....	21	221
227	4,614	249	336	248	2,945	552	1,011	38	173	1,593
10	53	61	183	87	45	5	236	35	104	334
7,452	4,722	25,493	2,269	831	727	11,496	3,185	1,450	6,446	150,105
48	1,138	6,838	1,263	248	475	2,394	977	822	2,097	24,810
15,369	7,794	2,842	1,600	1,124	132	18,358	1,689	157	446	36,907
798	2,032	575	1,147	207	27	3,232	524	125	117	16,921
1,071	2,479	812	613	576	10,691	10,526	6,097	712	226	4,082
21	594	385	386	359	8,991	5,122	3,252	468	70	2,122
55,511	272,282	22,602	15,767	13,059	28,637	19,058	44,716	7,022	3,812	78,811
4,046	40,276	12,480	7,855	5,467	18,093	7,891	13,491	3,934	1,487	39,363
417,393	673,707	325,295	120,450	444,320	79,443	180,938	344,465	154,536	789,528	1,405,493
30,295	142,094	165,049	62,858	250,612	49,380	72,812	184,230	128,601	481,131	367,083
69,991	41,371	8,152	12,308	73,552	37,076	13,773	65,231	8,133	66,832	116,936
1,821	6,265	78	9,271	31,653	26,032	4,052	19,264	6,372	8,503	39,388

CENSUS OF WAR COMMODITIES.

Table III.—ESTIMATED REQUIREMENTS, JULY 1 TO DECEMBER 31, 1918.

(Tons of 2,000 pounds.)

	CLASS OF STEEL.	Total.	Manufacturers of the specified products—Steel works, rolling mills, etc.	Railroad companies.	Shipyards.	War De- partment. ¹
1	1. Ingots, blooms, billets, and slabs.....	5,395,281	5,203,234	8,594	9,789	8,548
2	For Government contracts.....	3,466,154	3,313,674		9,742	8,548
3	2. Projectile steel.....	1,023,392	561,973			
4	For Government contracts.....	1,023,064	561,973			
5	3. Sheet bars and tin-plate bars.....	747,474	745,471	76		
6	For Government contracts.....	318,586	317,554			
7	4. Skelp, flue, etc.....	453,116	447,385	150		
8	For Government contracts.....	146,806	146,164			
9	5. Wire rods.....	516,708	417,577	36	4	226
10	For Government contracts.....	182,919	137,210		4	226
11	6. Plates ($\frac{1}{4}$ inch and over).....	1,711,994	298,056	49,302	592,614	5,224
12	For Government contracts.....	1,388,188	260,170		582,420	5,224
13	7. Sheets (under $\frac{1}{4}$ inch).....	921,431	87,671	3,297	13,916	1,372
14	For Government contracts.....	394,074	50,584		13,666	1,372
15	8. Merchant bars and shapes under 3 inches (including spike, chain, bolt, and nut rods, horseshoe bars, etc.).....	2,002,352	644,274	95,729	68,839	1,702
16	For Government contracts.....	1,091,484	452,306		63,372	1,702
17	9. Reinforced-concrete bars.....	42,869	929	8,043	10,259	195
18	For Government contracts.....	16,561	103		10,137	195
19	10. Long angle splice bars.....	45,174	36,017	6,203	336	12
20	For Government contracts.....	36,768	35,000		306	12
21	11. Structural shapes.....	1,257,446	372,749	38,938	258,376	2,032
22	For Government contracts.....	976,221	350,810		247,174	2,032
23	12. Seamless tubes.....	113,123	25,640	14,709	948	50
24	For Government contracts.....	53,017	5,444		918	50
25	13. Tubular products other than seamless tubes.....	235,184	5,244	11,417	8,750	602
26	For Government contracts.....	99,239	313		8,310	602
27	14. Rails:					
28	50 pounds and over.....	625,251	59,661	500,784	6,445	325
29	For Government contracts.....	49,866	25,127		5,724	325
30	Under 50 pounds.....	43,156	10,066	1,580	807	10
31	For Government contracts.....	19,549	10,026		797	10
32	15. Rail joints, fastenings, and tie-plates.....	97,787	2,972	91,216	193	1
33	For Government contracts.....	1,660	359		117	1
34	16. Tin plate.....	471,752	10,302	518	164	3,823
35	For Government contracts.....	61,743	3,335		164	3,823
36	17. Barbed wire.....	71,073	58,398	1,362	7	1
37	For Government contracts.....	49,550	49,228			1
38	18. Wire rope.....	13,095	112	777	3,099	49
39	For Government contracts.....	4,593	64		3,000	49
40	19. Other wire products.....	515,801	244,525	2,372	203	54
41	For Government contracts.....	148,435	84,169		193	54
42	20. Hoops, bands, and cotton ties.....	165,214	73,451	59	121	1
43	For Government contracts.....	65,943	27,779		63	1
44	21. Tool steel.....	48,694	5,385	875	732	367
45	For Government contracts.....	30,844	3,666		710	367
46	22. All other finished, rolled, and drawn iron and steel.....	623,838	62,395	15,807	5,960	4,051
47	For Government contracts.....	305,511	44,788		4,983	4,051
48	TOTAL.....	17,143,205	9,373,487	849,844	981,562	28,645
49	For Government contracts.....	9,930,775	5,879,846		951,800	28,645
50	23. Scrap iron and steel.....	5,248,687	4,570,747	47,816	8,176	26,886
	For Government contracts.....	2,911,760	2,623,239		6,656	26,886

¹ Including United States Navy Yard, Mare Island, Cal.

IRON AND STEEL PRODUCTS.

9

Table III.—ESTIMATED REQUIREMENTS, JULY 1 TO DECEMBER 31, 1918—Continued.

(Tons of 2,000 pounds.)

MANUFACTURERS CLASSIFIED ACCORDING TO CHIEF PRODUCT.										
Agricultural implements and vehicles other than motor vehicles.	Motor vehicles—Automobiles, trucks, and accessories.	Bolts, nuts, rivets, nails, screws, etc.	Electric and electric-power machinery, apparatus, and supplies.	Engines, pumps, compressors, etc., boilers, and tanks.	Machine tools.	Tools and hardware.	Machinery other than the foregoing.	Munitions and ordnance.	Fabrications—Structural and architectural ironwork.	Miscellaneous.
3,009	5,340	1,356	4,331	22,878	7,243	6,529	7,509	10,191	93,606	5,124
266	2,271	.....	3,691	19,570	4,517	2,165	2,856	4,165	91,069	3,620
10	19,400	.....	.....	50	56	3	183,471	210,571	.....	47,858
.....	19,400	.....	.....	.....	56	.....	183,270	210,571	.....	47,794
308	8	.....	8	.....	19	62	62	8	141	1,311
.....	1	.....	1	.....	17	51	28	8	.....	926
741	.....	2,200	.....	.....	.....	1,400	5	.....	.....	1,235
.....	.....	150	.....	.....	.....	492	.....	.....	.....	.....
1,057	3,002	58,007	873	290	460	7,778	429	182	3,769	23,018
70	2,362	26,429	612	81	183	5,599	208	162	732	9,041
21,067	69,915	660	16,330	216,297	2,597	2,844	26,149	20,564	259,758	130,617
2,331	63,072	20	12,208	149,948	1,988	1,372	8,411	19,394	203,653	77,977
36,433	192,136	20,765	51,091	90,478	4,371	38,974	29,263	4,665	41,835	305,164
1,459	105,746	6,953	33,242	34,682	1,250	15,527	7,386	4,268	19,142	98,797
261,677	80,486	249,640	19,823	74,920	18,066	81,262	72,376	14,805	104,016	214,737
29,814	40,985	168,158	12,460	39,083	10,562	45,110	18,259	12,034	69,672	127,967
210	2,123	50	704	305	25	.....	177	20	19,546	283
.....	89	5	3	200	12	.....	36	20	5,661	100
32	474	.....	165	149	52	311	412	1	295	715
.....	242	.....	23	76	50	80	364	1	193	421
8,201	14,012	52	12,819	29,133	2,303	1,801	21,567	4,898	413,883	76,682
820	7,116	3	6,718	20,069	1,801	699	8,382	3,074	279,484	48,039
1,350	11,069	128	456	42,107	317	719	1,891	124	811	12,804
215	6,833	117	280	31,469	124	578	513	44	558	5,874
14,979	2,168	691	11,142	37,948	2,637	5,755	19,407	130	11,533	102,781
776	889	118	3,776	18,087	2,251	2,466	7,172	114	6,800	47,565
.....	1,280	.....	969	367	.....	.....	707	.....	5,059	49,654
.....	50	.....	265	291	.....	.....	94	.....	2,036	15,954
60	335	.....	733	15	30	.....	1,985	.....	822	26,713
12	215	.....	577	2	30	.....	192	.....	245	7,443
.....	149	.....	17	.....	.....	1	260	.....	336	2,642
.....	19	.....	14	.....	.....	1	15	.....	182	952
298	2,483	125	109	1,871	43	2,502	1,073	7,085	2,649	438,707
.....	156	51	83	47	.....	1,008	192	73	1,664	51,147
288	101	110	.....	155	19	1	49	.....	406	10,176
.....	1	.....	.....	.....	17	.....	.....	.....	51	252
230	847	257	396	284	2,928	833	1,103	50	204	1,926
15	112	62	159	97	70	32	277	6	158	492
7,447	4,625	26,580	2,685	956	827	11,547	3,520	1,542	7,429	203,489
40	1,194	12,545	1,685	267	438	4,753	1,424	528	2,496	38,649
16,036	5,969	2,363	2,353	979	161	18,058	1,649	116	335	43,563
915	2,506	583	2,118	151	25	4,951	575	91	130	26,055
1,032	2,587	966	681	655	12,353	11,686	6,149	956	127	4,143
36	1,330	547	463	425	10,170	7,361	3,307	741	68	1,653
55,305	208,628	27,423	20,743	15,496	31,789	22,757	49,104	6,543	3,968	93,869
5,533	101,833	17,022	12,862	7,029	19,302	10,566	15,048	3,423	1,832	57,239
429,770	627,137	391,373	146,428	535,393	88,296	214,823	428,317	282,451	970,528	1,797,211
42,302	356,422	232,763	91,240	321,574	52,863	102,811	258,009	258,717	685,826	667,957
85,973	38,764	8,139	13,428	85,016	41,086	13,658	70,056	8,196	94,442	136,304
18,904	25,783	132	10,714	43,763	31,965	3,299	27,032	6,456	13,538	73,393

CENSUS OF WAR COMMODITIES.

Table IV.—SUMMARY—STOCKS, CONSUMPTION AND REQUIREMENTS.

CLASS OF STEEL.	TOTAL.—10,494 ESTABLISHMENTS.					A.—MANUFACTURERS OF THE SPECIFIED PRODUCTS—STEEL WORKS, ROLLING MILLS, ETC. (441 ESTABLISHMENTS).						
	Stocks, Sept. 1, 1918.	Consumption and requirements, 1918.			Per cent of class total.	Stocks, Sept. 1, 1918.	Consumption and requirements, 1918.			Per cent of class total.	Stocks.	Consumption and requirements.
		Total.	For Government contracts.				Total.	For Government contracts.				
			Amount.	Per cent.				Amount.	Per cent.			
1. Ingots, blooms, billets, and slabs.....	1, 692, 879	10, 338, 169	6, 349, 834	61. 4		1, 639, 943	9, 995, 445	6, 073, 624	60. 8		96. 9	96. 7
2. Projectile steel.....	381, 000	1, 686, 144	1, 683, 927	99. 9		267, 118	1, 000, 319	998, 619	99. 8		70. 1	59. 3
3. Sheet bars and tin-plate bars.....	190, 317	1, 376, 576	519, 602	37. 7		186, 646	1, 372, 284	518, 020	37. 7		98. 1	99. 7
4. Skelp, flue, etc.....	179, 317	774, 702	263, 589	34. 0		176, 202	765, 687	262, 712	34. 3		98. 3	98. 8
5. Wire rods.....	118, 398	944, 441	295, 838	31. 3		79, 056	763, 911	216, 681	28. 4		66. 8	80. 9
6. Plates ($\frac{1}{4}$ inch and over).....	788, 227	2, 857, 461	2, 136, 253	74. 8		186, 815	512, 026	389, 607	76. 1		23. 7	18. 0
7. Sheets (under $\frac{1}{4}$ inch).....	724, 839	1, 804, 274	618, 767	34. 3		147, 558	159, 026	77, 112	48. 5		20. 4	8. 8
8. Merchant bars and shapes under 3 inches (including spike, chain, bolt, and nut rods, horseshoe bars, etc.).....	1, 213, 714	3, 760, 087	1, 895, 431	50. 4		272, 843	1, 244, 551	810, 821	65. 1		22. 5	33. 1
9. Reinforced-concrete bars.....	85, 952	73, 302	23, 537	32. 1		21, 362	1, 993	206	10. 3		24. 9	2. 7
10. Long angle splice bars.....	17, 956	85, 616	69, 995	81. 8		12, 279	70, 249	67, 165	95. 6		68. 3	82. 1
11. Structural shapes.....	581, 328	2, 190, 198	1, 591, 428	72. 2		151, 539	657, 435	587, 625	89. 4		26. 1	30. 0
12. Seamless tubes.....	78, 228	204, 892	103, 286	50. 4		11, 315	44, 852	20, 145	44. 9		14. 5	21. 9
13. Tubular products other than seamless tubes..	440, 333	435, 718	163, 193	37. 5		112, 412	9, 610	506	5. 3		25. 5	2. 2
14. Rails:												
50 pounds and over.....	650, 256	1, 208, 804	95, 738	7. 9		98, 204	116, 645	47, 866	41. 0		15. 1	9. 6
Under 50 pounds.....	65, 649	79, 298	41, 675	52. 6		20, 644	20, 125	20, 032	99. 5		31. 4	25. 4
15. Rail joints, fastenings, and tie-plates.....	181, 334	189, 045	3, 893	2. 1		24, 566	3, 557	726	20. 4		13. 6	1. 9
16. Tin plate.....	301, 950	889, 945	88, 707	10. 0		45, 590	18, 158	3, 537	19. 5		15. 1	2. 0
17. Barbed wire.....	10, 201	102, 482	61, 162	58. 7		5, 062	80, 823	60, 467	74. 8		49. 6	79. 0
18. Wire rope.....	24, 695	27, 976	7, 707	27. 9		7, 854	210	117	55. 7		31. 8	0. 8
19. Other wire products.....	296, 839	991, 467	245, 635	24. 8		163, 118	501, 480	140, 089	27. 9		55. 0	50. 5
20. Hoops, bands, and cotton ties.....	91, 912	312, 209	109, 717	35. 1		22, 193	133, 976	45, 842	34. 2		24. 2	42. 9
21. Tool steel.....	61, 586	92, 783	56, 331	60. 7		19, 437	10, 093	6, 637	65. 8		31. 3	10. 9
22. All other finished, rolled, and drawn iron and steel.....	412, 137	1, 264, 497	497, 654	39. 3		75, 460	117, 045	75, 713	64. 7		18. 3	9. 1
TOTAL.....	8, 589, 047	31, 690, 067	16, 922, 899	53. 4		3, 747, 216	17, 599, 500	10, 423, 869	59. 2		43. 6	55. 5
23. Scrap iron and steel.....	1, 873, 988	9, 701, 717				1, 429, 554	8, 447, 426				76. 3	87. 0

CLASS OF STEEL.	B.—WHOLESALEERS, JOBBERS, AND DEALERS (942 ESTABLISHMENTS).		C.—RAILROAD COMPANIES (499 ESTABLISHMENTS).				D.—SHIPYARDS (102 ESTABLISHMENTS).					
	Stocks, Sept. 1, 1918.		Stocks, Sept. 1, 1918.	Consumption and requirements, 1918.	Per cent of class total.		Stocks, Sept. 1, 1918.	Consumption and requirements, 1918.			Per cent of class total.	
	Amount.	Per cent of class total.			Stocks.	Consumption and requirements.		Total.	For Government contracts.		Stocks.	Consumption and requirements.
									Amount.	Per cent.		
1. Ingots, blooms, billets, and slabs.....	259	(¹)	6. 233	12, 687	0. 4	0. 1	6, 577	18, 828	18, 693	99. 2	0. 4	0. 2
2. Projectile steel.....	36	(¹)	20	163	(¹)	(¹)						
3. Sheet bars and tin-plate bars.....	50	(¹)	637	454	0. 4	0. 1						
4. Skelp, flue, etc.....	799	0. 7	40	76	(¹)	(¹)		8	8	100. 0		(¹)
5. Wire rods.....	29, 227	3. 7	69, 272	99, 356	8. 8	3. 5	249, 746	907, 991	883, 793	97. 3	31. 7	31. 3
6. Plates ($\frac{1}{4}$ inch and over).....	39, 301	5. 4	19, 170	19, 672	2. 6	1. 1	7, 112	23, 440	22, 257	95. 0	1. 0	1. 3
7. Sheets (under $\frac{1}{4}$ inch).....												
8. Merchant bars and shapes under 3 inches (including spike, chain, bolt, and nut rods, horseshoe bars, etc.).....	156, 003	12. 9	93, 822	193, 357	7. 7	5. 2	40, 013	110, 299	100, 304	90. 9	3. 3	2. 9
9. Reinforced-concrete bars.....	22, 657	26. 4	7, 426	13, 261	8. 6	18. 1	371	10, 833	10, 615	98. 0	0. 4	14. 8
10. Long angle splice bars.....	20	0. 1	4, 024	10, 054	22. 6	11. 8	2	409	378	92. 4	(¹)	0. 5
11. Structural shapes.....	25, 937	4. 5	38, 372	71, 475	6. 6	3. 2	135, 289	393, 253	371, 522	94. 5	23. 2	18. 0
12. Seamless tubes.....	5, 688	7. 3	22, 814	27, 265	29. 2	13. 3	668	1, 332	1, 227	92. 2	0. 9	0. 7
13. Tubular products other than seamless tubes.....	171, 103	38. 9	14, 868	24, 881	3. 4	5. 7	5, 067	14, 507	13, 327	91. 9	1. 2	3. 3
14. Rails:												
50 pounds and over.....	5, 371	0. 8	494, 935	987, 054	76. 0	81. 7	3, 040	11, 032	8, 880	80. 5	0. 5	0. 9
Under 50 pounds.....	5, 877	9. 0	4, 941	4, 988	7. 5	6. 3	333	1, 287	1, 267	98. 4	0. 5	1. 6
15. Rail joints, fastenings, and tie-plates.....	1, 133	0. 6	143, 947	178, 514	79. 4	94. 5	141	526	302	57. 4	0. 1	0. 3
16. Tin plate.....	10, 672	3. 5	402	978	0. 1	0. 1	5	202	202	100. 0	(¹)	(¹)
17. Barbed wire.....	1, 453	14. 3	1, 839	2, 490	18. 0	2. 4	1	31			(¹)	(¹)
18. Wire rope.....	1, 810	7. 3	727	1, 519	2. 9	5. 4	1, 312	5, 126	4, 880	95. 2	5. 3	18. 3
19. Other wire products.....	33, 399	11. 3	4, 126	4, 689	1. 3	0. 5	96	385	327	84. 9	(¹)	(¹)
20. Hoops, bands, and cotton ties.....	10, 910	11. 9	98	105	0. 1	(¹)	29	126	68	53. 9	(¹)	(¹)
21. Tool steel.....	5, 599	9. 1	1, 178	1, 592	1. 9	1. 7	519	1, 218	1, 163	95. 5	0. 9	1. 3
22. All other finished, rolled, and drawn iron and steel.....	15, 051	3. 7	11, 421	33, 676	2. 7	2. 7	1, 495	9, 835	8, 830	89. 8	0. 3	0. 8
TOTAL.....	542, 355	6. 3	940, 312	1, 688, 306	10. 9	5. 3	451, 816	1, 510, 668	1, 448, 043	95. 9	5. 3	4. 8
23. Scrap iron and steel.....	16, 874	0. 9	145, 598	101, 629	7. 8	1. 0	4, 823	13, 162			0. 3	0. 1

¹ Less than one-tenth of 1 per cent.

Table IV.—SUMMARY—STOCKS, CONSUMPTION AND REQUIREMENTS—Continued.

CLASS OF STEEL.	E.—WARD EAPARTMENT* (10 ESTABLISHMENTS).					F.—MANUFACTURERS OF AGRICULTURAL IMPLEMENTS AND VEHICLES OTHER THAN MOTOR VEHICLES (610 ESTABLISHMENTS):						
	Stocks, Sept. 1, 1918.	Consumption and requirements, 1918.	Per cent of class total.		Stocks, Sept. 1, 1918.	Consumption and requirements, 1918.			Per cent of class total.			
			Stocks.	Consumption and requirements.		Total.	- For Government contracts.		Stocks.	Consumption and requirements.		
							Amount.	Per cent.				
1. Ingots, blooms, billets, and slabs.....	5,611	10,100	0.3	0.1	1,813	4,910	386	7.9	0.1	(1)		
2. Projectile steel.....						18				(1)		
3. Sheet bars and tin-plate bars.....					172	676			0.1	0.1		
4. Skelp, flue, etc.....					39	1,368			(1)	0.2		
5. Wire rods.....	327	427	0.3	0.1	779	1,947	144	7.2	0.7	0.2		
6. Plates ($\frac{1}{4}$ inch and over).....	12,647	9,278	1.6	0.3	14,978	42,326	3,798	0.9	1.9	1.5		
7. Sheets (under $\frac{1}{4}$ inch).....	6,576	2,628	0.9	0.1	27,489	71,529	2,275	3.2	3.8	4.0		
8. Merchant bars and shapes under 3 inches (including spike, chain, bolt, and nut rods, horseshoe bars, etc.).....	5,880	3,021	0.5	0.1	175,203	513,793	51,682	10.1	14.4	13.7		
9. Reinforced-concrete bars.....	2,428	247	2.8	0.3	30	437	13	3.0	(1)	0.6		
10. Long angle splice bars.....	29	24	0.2	(1)	50	64			0.3	0.1		
11. Structural shapes.....	10,109	2,907	1.7	0.1	9,999	17,681	1,281	7.2	1.7	0.8		
12. Seamless tubes.....	232	507	0.3	0.3	1,743	2,578	247	9.6	2.2	1.3		
13. Tubular products other than seamless tubes.....	1,243	1,059	0.3	0.2	9,309	28,985	1,297	4.5	2.1	6.7		
14. Rails:												
50 pounds and over.....	21,333	1,441	3.2	0.1	4				(1)			
Under 50 pounds.....	18,558	23	28.3	(1)	55	101	12	11.9	0.1	0.1		
15. Rail joints, fastenings, and tie-plates.....	7,771	16	4.3	(1)	4				(1)			
16. Tin plate.....	132	6,799	(1)	0.8	218	591			0.1	0.1		
17. Barbed wire.....	1,330	13	13.1	(1)	8	479			0.1	0.5		
18. Wire rope.....	165	77	0.7	0.3	132	457	25	5.5	0.5	1.6		
19. Other wire products.....	2,106	90	0.7	(1)	3,797	14,899	88	0.6	1.4	1.5		
20. Hoops, bands, and cotton ties.....	22	2	(1)	(1)	14,350	31,405	1,703	5.4	15.6	10.1		
21. Tool steel.....	234	660	0.4	0.7	1,292	2,103	57	2.7	2.1	2.3		
22. All other finished, rolled, and drawn iron and steel.....	4,800	7,039	1.1	0.6	43,945	110,816	9,579	8.6	10.7	8.8		
TOTAL.....	101,533	46,358	1.2	0.1	305,409	847,163	72,597	8.6	3.6	2.7		
23. Scrap iron and steel.....	5,354	31,083	0.3	0.3	35,692	155,964			1.9	1.6		

CLASS OF STEEL.	G.—MANUFACTURERS OF MOTOR VEHICLES—AUTOMOBILES, TRUCKS, AND ACCESSORIES (590 ESTABLISHMENTS).							H.—MANUFACTURERS OF BOLTS, NUTS, RIVETS, NAILS, SCREWS, ETC. (214 ESTABLISHMENTS).						
	Stocks, Sept. 1, 1918.	Consumption and requirements, 1918.		Per cent of class total.			Stocks, Sept. 1, 1918.	Consumption and requirements, 1918.		Per cent of class total.				
		Total.	For Government contracts.	Stocks.	Consumption and requirements.			Total.	For Government contracts.	Stocks.	Consumption and requirements.			
													Amount.	Per cent.	Amount.	Per cent.
1. Ingots, blooms, billets, and slabs.....	1,969	8,696	3,751	43.1	0.1	0.1	220	2,607		(1)	(1)			
2. Projectile steel.....	2,866	19,406	19,406	100.0	0.7	1.2		4,250	4,250	100.0		0.3		
3. Sheet bars and tin-plate bars.....	8	12	2	16.7	(1)	(1)								
4. Skelp, flue, etc.....							759	2,703	250	9.3	0.4	0.4		
5. Wire rods.....	1,598	5,547	4,289	77.3	1.4	0.6	17,491	106,725	44,556	41.8	14.8	11.3		
6. Plates ($\frac{1}{4}$ inch and over).....	15,955	98,431	81,056	82.3	2.0	3.4	181	1,019	35	3.4	(1)	(1)		
7. Sheets (under $\frac{1}{4}$ inch).....	85,535	439,605	145,022	32.8	11.8	24.4	37,644	37,430	10,333	2.8	5.2	2.1		
8. Merchant bars and shapes under 3 inches (including spike, chain, bolt, and nut rods, horseshoe bars, etc.).....	50,651	151,112	67,265	44.5	4.2	4.0	95,746	450,299	286,720	63.7	7.9	12.0		
9. Reinforced-concrete bars.....	3,219	5,493	269	4.9	3.7	7.5	30	90	15	16.7	(1)	0.1		
10. Long angle splice bars.....	368	947	430	45.4	2.0	1.1								
11. Structural shapes.....	8,793	23,812	10,961	46.0	1.5	1.1	10	116	7	6.0	(1)	(1)		
12. Seamless tubes.....	7,258	20,553	11,552	56.2	9.3	10.0	105	265	242	91.3	0.1	0.1		
13. Tubular products other than seamless tubes.....	13,509	4,019	1,431	35.6	3.1	0.9	298	1,125	218	19.3	(1)	0.3		
14. Rails:														
50 pounds and over.....	798	2,912	1,292	44.4	0.1	0.2								
Under 50 pounds.....	30	396	265	66.9	0.1	0.5								
15. Rail joints, fastenings, and tie-plates.....	48	381	200	52.5	(1)	0.2								
16. Tin plate.....	318	4,773	255	5.3	0.1	0.5	78	237	88	37.1	(1)	(1)		
17. Barbed wire.....	1	202	2	0.9	(1)	0.2	12	215			0.1	0.2		
18. Wire rope.....	5,922	5,461	165	3.0	24.0	19.5	468	506	123	24.3	1.9	1.8		
19. Other wire products.....	5,735	9,347	2,332	24.9	1.9	0.9	14,962	52,073	19,383	37.2	5.0	5.3		
20. Hoops, bands, and cotton ties.....	6,647	13,763	4,538	33.0	7.2	4.4	1,634	5,205	1,158	22.3	1.8	1.7		
21. Tool steel.....	2,300	5,066	1,924	38.0	3.8	5.2	1,156	1,778	932	52.4	1.9	1.9		
22. All other finished, rolled, and drawn iron and steel.....	75,291	480,910	142,109	29.6	18.5	38.0	19,156	50,025	29,502	59.0	4.6	4.0		
TOTAL.....	288,819	1,300,844	498,516	38.3	3.4	4.1	189,950	716,668	397,812	55.5	2.2	2.3		
23. Scrap iron and steel.....	13,406	80,135			0.7	0.8	10,023	16,291			0.5	0.2		

* Including United States Navy Yard, Mare Island, Cal.

¹ Less than one-tenth of 1 per cent.

CENSUS OF WAR COMMODITIES.

Table IV.—SUMMARY—STOCKS, CONSUMPTION AND REQUIREMENTS—Continued.

CLASS OF STEEL.	I.—MANUFACTURERS OF ELECTRIC AND ELECTRIC-POWER MACHINERY, APPARATUS, AND SUPPLIES (418 ESTABLISHMENTS).							J.—MANUFACTURERS OF ENGINES, PUMPS, COM-PRESSORS, ETC., BOILERS, AND TANKS (629 ESTABLISHMENTS).						
	Stocks, Sept. 1, 1918.	Consumption and require-ments, 1918.			Per cent of class total.		Stocks, Sept. 1, 1918.	Consumption and require-ments, 1918.			Per cent of class total.			
		Total.	For Government contracts.		Stocks.	Consumption and require-ments.		Total.	For Government contracts.		Stocks.	Consumption and require-ments.		
			Amount.	Per cent.					Amount.	Per cent.				
1. Ingots, blooms, billets, and slabs.....	1, 151	7, 579	6, 101	80.5	0.1	0.1	7, 263	41, 687	36, 111	86.6	0.4	0.4		
2. Projectile steel.....	305	128	128	100.0	0.1	(1)	51	100			(1)	(1)		
3. Sheet bars and tin-plate bars.....	59	66	2	3.0	(1)	(1)	17				(1)			
4. Skelp, flue, etc.....	26				(1)									
5. Wire rods.....	1, 127	1, 416	994	70.2	0.9	0.2	257	578	128	22.1	0.2	0.1		
6. Plates ($\frac{1}{2}$ inch and over).....	13, 960	26, 966	19, 122	70.9	1.8	0.9	50, 688	395, 700	263, 695	66.6	6.4	13.8		
7. Sheets (under $\frac{1}{2}$ inch).....	47, 344	99, 078	59, 925	60.5	6.5	5.5	55, 808	166, 339	61, 770	37.1	7.7	9.2		
8. Merchant bars and shapes under 3 inches (including spike, chain, bolt, and nut rods, horseshoe bars, etc.).....	21, 147	35, 033	19, 314	55.1	1.7	0.9	33, 740	136, 039	70, 675	52.0	2.8	3.6		
9. Reinforced-concrete bars.....	239	1, 273	62	4.9	0.3	1.8	68	750	346	46.1	0.1	1.0		
10. Long angle splice bars.....	142	293	40	13.7	0.8	0.3	44	318	150	47.1	0.3	0.4		
11. Structural shapes.....	6, 748	22, 855	11, 512	50.4	1.2	1.1	19, 826	53, 412	35, 270	66.6	3.4	2.4		
12. Seamless tubes.....	658	897	511	57.0	0.8	0.4	14, 780	75, 017	55, 165	73.5	18.9	36.6		
13. Tubular products other than seamless tubes.....	5, 683	20, 137	6, 658	33.1	1.3	4.6	18, 819	70, 585	33, 758	78.1	4.3	16.2		
14. Rails:														
50 pounds and over.....	1, 096	2, 109	440	20.9	0.2	0.2	662	736	511	69.4	0.1	0.1		
Under 50 pounds.....	406	1, 287	733	72.5	0.6	1.6	73	55	2	3.6	0.1	0.1		
15. Rail joints, fastenings, and tie-plates.....	65	61	27	44.3	(1)	(1)	3	3			(1)	(1)		
16. Tin plate.....	111	257	208	80.9	(1)	(1)	1, 966	3, 846	68	1.8	0.7	0.4		
17. Barbed wire.....							41	280			0.4	0.3		
18. Wire rope.....	347	732	342	46.7	1.4	2.6	82	532	184	34.6	0.3	1.9		
19. Other wire products.....	1, 298	4, 954	2, 948	59.5	0.4	0.5	1, 075	1, 787	515	28.8	0.4	0.2		
20. Hoops, bands, and cotton ties.....	1, 102	3, 953	3, 265	82.6	1.2	1.3	1, 686	2, 103	358	17.0	1.8	0.7		
21. Tool steel.....	653	1, 294	849	65.6	1.1	1.4	490	1, 231	784	63.7	0.8	1.3		
22. All other finished, rolled, and drawn iron and steel.....	13, 206	36, 510	20, 717	56.7	3.2	2.9	10, 487	28, 555	12, 496	43.7	2.5	2.2		
TOTAL.....	116, 873	266, 878	154, 098	57.7	1.4	0.8	217, 926	979, 653	572, 186	58.4	2.5	3.1		
23. Scrap iron and steel.....	7, 883	25, 736			0.4	0.3	46, 671	158, 568			2.5	1.6		

CLASS OF STEEL.	K.—MANUFACTURERS OF MACHINE TOOLS (437 ESTABLISHMENTS).							L.—MANUFACTURERS OF TOOLS AND HARDWARE (807 ESTABLISHMENTS).						
	Stocks, Sept. 1, 1918.	Consumption and require-ments, 1918.			Per cent of class total.		Stocks, Sept. 1, 1918.	Consumption and require-ments, 1918.			Per cent of class total.			
		Total.	For Government contracts.		Stocks.	Consumption and require-ments.		Total.	For Government contracts.		Stocks.	Consumption and require-ments.		
			Amount.	Per cent.					Amount.	Per cent.				
1. Ingots, blooms, billets, and slabs.....	4, 681	13, 248	10, 484	79.1	0.3	0.1	2, 942	10, 465	3, 538	33.8	0.2	0.1		
2. Projectile steel.....	190	101	101	100.0	0.1	(1)		6				(1)		
3. Sheet bars and tin-plate bars.....		35	32	91.4		(1)	2, 004	74	52	70.3	1.1	(1)		
4. Skelp, flue, etc.....							1, 413	2, 111	586	27.8	0.8	0.3		
5. Wire rods.....	515	882	384	43.5	0.5	0.1	1, 916	13, 567	9, 080	66.9	1.6	1.4		
6. Plates ($\frac{1}{2}$ inch and over).....	2, 443	5, 181	3, 123	50.3	0.3	0.2	1, 498	5, 576	2, 634	47.2	0.2	0.2		
7. Sheets (under $\frac{1}{2}$ inch).....	2, 946	8, 656	2, 248	26.0	0.4	0.5	22, 995	71, 593	27, 109	37.9	3.2	4.0		
8. Merchant bars and shapes under 3 inches (including spike, chain, bolt, and nut rods, horseshoe bars, etc.).....	19, 538	35, 130	20, 441	38.2	1.6	0.9	51, 747	146, 795	78, 427	53.4	4.3	3.9		
9. Reinforced-concrete bars.....	1	100	50	50.0	(1)	0.1	461				0.5			
10. Long angle splice bars.....	4	79	75	94.9	(1)	(1)	2	594	110	18.5	(1)	0.7		
11. Structural shapes.....	2, 075	4, 586	2, 898	63.2	0.4	0.2	576	3, 259	1, 147	35.2	0.1	0.2		
12. Seamless tubes.....	352	693	255	36.8	0.4	0.3	73	1, 427	1, 189	83.3	0.1	0.7		
13. Tubular products other than seamless tubes.....	1, 216	5, 609	4, 422	78.8	0.3	1.3	3, 947	11, 333	3, 946	34.8	0.9	2.6		
14. Rails:														
50 pounds and over.....	7	55			(1)	(1)								
Under 50 pounds.....	145	60	60	100.0	0.2	0.1								
15. Rail joints, fastenings, and tie-plates.....	19	5			(1)	(1)		1	1	100.0		(1)		
16. Tin plate.....	30	92			(1)	(1)	869	3, 979	1, 397	35.1	0.3	0.4		
17. Barbed wire.....		37	34	91.9	(1)	(1)	62	110	100	90.9	0.6	0.1		
18. Wire rope.....	675	5, 873	115	2.0	2.7	21.0	189	1, 385	37	2.7	0.8	5.0		
19. Other wire products.....	631	1, 554	913	58.8	0.2	0.2	6, 153	23, 043	7, 147	31.0	2.1	2.3		
20. Hoops, bands, and cotton ties.....	106	293	52	17.7	0.1	(1)	9, 155	36, 416	8, 183	22.5	10.0	11.7		
21. Tool steel.....	5, 915	23, 044	19, 161	83.1	9.6	24.8	8, 253	22, 212	12, 483	56.2	13.4	23.9		
22. All other finished, rolled, and drawn iron and steel.....	27, 555	50, 424	37, 395	61.9	6.7	4.8	18, 625	41, 815	18, 457	44.1	4.5	3.3		
TOTAL.....	69, 044	165, 739	102, 243	61.7	0.8	0.5	132, 880	395, 761	175, 623	44.4	1.5	1.3		
23. Scrap iron and steel.....	16, 433	79, 041			0.8	0.8	13, 242	27, 431			0.7	0.8		

¹ Less than one-tenth of 1 per cent.

Table IV.—SUMMARY—STOCKS, CONSUMPTION AND REQUIREMENTS—Continued.

CLASS OF STEEL.	M.—MANUFACTURERS OF MACHINERY OTHER THAN THE FOREGOING (1,023 ESTABLISHMENTS).							N.—MANUFACTURERS OF MUNITIONS AND ORDNANCE (60 ESTABLISHMENTS).						
	Stocks, Sept. 1, 1918.	Consumption and require- ments, 1918.			Per cent of class total.			Stocks, Sept. 1, 1918.	Consumption and require- ments, 1918.			Per cent of class total.		
		Total.	For Government contracts.		Stocks.	Consumption and require- ments.	Total.		For Government contracts.		Stocks.	Consumption and require- ments.		
			Amount.	Per cent.					Amount.	Per cent.				
1. Ingots, blooms, billets, and slabs.....	4,935	15,986	6,690	41.8	0.3	0.2	1,366	19,744	13,150	66.6	0.1	0.2		
2. Projectile steel.....	12,354	297,282	297,020	99.6	3.3	17.6	83,103	304,284	304,284	100.0	21.8	18.0		
3. Sheet bars and tin-plate bars.....	273	113	44	38.9	0.1	(¹)	5	45	13	28.9	(¹)	(¹)		
4. Skelp, flue, etc.....		8				(¹)								
5. Wire rods.....	341	880	306	34.8	0.3	0.1	165	410	350	85.4	0.1	(¹)		
6. Plates ($\frac{1}{4}$ inch and over).....	17,761	50,295	14,544	28.9	2.2	1.8	9,216	33,974	26,594	78.3	1.2	1.2		
7. Sheets (under $\frac{1}{4}$ inch).....	19,511	58,016	11,971	20.6	2.7	3.2	6,470	8,956	7,884	88.0	0.9	0.5		
8. Merchant bars and shapes under 3 inches (including spike, chain, bolt, and nut rods, horseshoe bars, etc.).....	50,561	140,859	42,896	30.5	4.2	3.7	5,807	25,732	19,149	74.4	0.5	0.7		
9. Reinforced-concrete bars.....	189	445	75	16.9	0.2	0.6	46	40	40	100.0	0.1	0.1		
10. Long angle splice bars.....	127	618	505	81.7	0.7	0.7		2	2	100.0		(¹)		
11. Structural shapes.....	17,783	42,293	15,003	35.5	3.1	1.9	3,588	10,105	5,233	51.8	0.6	0.5		
12. Seamless tubes.....	1,823	3,566	1,179	33.1	2.3	1.7	335	255	79	31.0	0.4	0.1		
13. Tubular products other than seamless tubes..	21,212	36,237	11,842	32.7	4.8	8.3	69	262	218	83.2	(¹)	0.1		
14. Rails:														
50 pounds and over.....	738	1,388	192	13.8	0.1	0.1		20				(¹)		
Under 50 pounds.....	1,043	3,995	459	11.5	1.6	5.0								
15. Rail joints, fastenings, and tie-plates.....	410	454	22	4.8	0.2	0.2	20				(¹)			
16. Tin plate.....	784	2,026	379	14.4	0.3	0.2	3,418	14,572	149	1.0	1.1	1.6		
17. Barbed wire.....	13	98	1	1.0	0.1	0.1								
18. Wire rope.....	667	2,114	513	24.3	2.7	7.6	4	88	41	46.6	(¹)	0.3		
19. Other wire products.....	2,956	6,705	2,401	35.8	1.0	0.7	569	2,992	1,350	45.1	0.2	0.3		
20. Hoops, bands, and cotton ties.....	941	3,338	1,099	32.9	1.0	1.0	199	273	215	79.1	0.2	0.1		
21. Total steel.....	4,744	12,246	6,559	53.6	7.7	13.2	756	1,658	1,209	72.5	1.3	1.1		
22. All other finished, rolled, and drawn iron and steel.....	34,573	93,870	28,539	30.4	8.4	7.4	5,470	13,565	7,357	54.2	1.3	1.1		
TOTAL.....	193,739	772,782	442,239	57.2	2.2	2.4	120,606	436,987	387,318	88.6	1.4	1.4		
23. Scrap iron and steel.....	29,405	135,287			1.6	1.4	5,355	16,329			0.3	0.2		

CLASS OF STEEL.	O.—FABRICATIONS—STRUCTURAL AND ARCHITECTURAL IRONWORK (636 ESTABLISHMENTS).							P.—MISCELLANEOUS (3,076 ESTABLISHMENTS).						
	Stocks, Sept. 1, 1918.	Consumption and require- ments, 1918.			Per cent of class total.		Stocks, Sept. 1, 1918.	Consumption and require- ments.	Stocks, Sept. 1, 1918.	Consumption and require- ments, 1918.			Per cent of class total.	
		Total.	For Government contracts.		Stocks.	Consumption and require- ments.				Total.	For Government contracts.		Stocks.	Consumption and require- ments.
			Amount.	Per cent.							Amount.	Per cent.		
1. Ingots, blooms, billets, and slabs.....	2,774	166,786	160,998	96.5	0.1	1.6	5,142	9,401	6,208	66.0	0.3	0.1		
2. Projectile steel.....	392	2			0.1	(1)	14,621	60,248	60,119	99.8	3.8	3.6		
3. Sheet bars and tin-plate bars.....	79	283	11	3.9	(1)	(1)	998	2,825	1,426	50.0	0.5	0.2		
4. Skelp, flue, etc.....	1				(1)		190	2,371	41	1.7	0.1	0.3		
5. Wire rods.....	935	7,399	1,879	25.4	0.7	0.7	13,052	40,668	16,612	40.8	11.0	4.3		
6. Plates ($\frac{1}{4}$ inch and over).....	77,674	450,411	331,741	73.7	9.9	15.8	36,166	218,931	107,233	49.0	4.6	7.7		
7. Sheets (under $\frac{1}{4}$ inch).....	19,350	82,588	34,802	42.1	2.7	4.6	180,030	555,718	153,431	27.6	24.8	30.8		
8. Merchant bars and shapes under 3 inches (including spike, chain, bolt, and nut rods, horseshoe bars, etc.).....	43,013	192,698	117,013	60.7	3.5	5.1	98,000	381,369	207,713	54.5	8.1	10.2		
9. Reinforced-concrete bars.....	27,014	37,699	11,442	30.3	31.4	51.4	411	641	157	24.5	0.5	0.9		
10. Long angle splice bars.....	374	512	307	74.5	2.1	0.6	491	1,434	807	56.4	2.6	1.7		
11. Structural shapes.....	124,943	757,801	478,818	63.2	21.5	34.6	25,741	129,208	67,244	52.0	4.4	5.9		
12. Seamless tubes.....	442	1,524	1,073	70.4	0.6	0.8	9,942	24,161	9,915	41.0	12.7	11.8		
13. Tubular products other than seamless tubes.....	7,852	21,932	12,703	57.9	1.8	5.0	53,726	185,437	71,608	38.6	12.0	42.6		
14. Rails:														
50 pounds and over.....	1,736	9,209	3,691	40.1	0.3	0.8	22,332	76,203	31,425	41.2	3.4	6.3		
Under 50 pounds.....	911	1,823	747	41.0	1.4	2.3	12,633	45,158	17,875	39.6	19.2	57.0		
15. Rail joints, fastenings, and tie-plates...	564	593	252	42.5	0.3	0.3	2,643	4,934	2,347	47.6	1.5	2.6		
16. Tin plate.....	502	4,903	2,859	58.3	0.2	0.6	236,855	828,532	72,766	8.8	78.5	93.1		
17. Barbed wire.....	60	727	72	1.0	0.6	0.7	319	16,977	473	2.8	3.1	16.6		
18. Wire rope.....	85	377	262	69.5	0.3	1.3	4,256	3,519	826	23.5	17.4	12.6		
19. Other wire products.....	2,099	13,875	4,593	33.1	0.7	1.4	54,719	353,594	63,459	17.9	18.4	35.7		
20. Hoops, bands, and cotton ties.....	1,050	781	247	31.6	1.2	0.2	21,790	80,470	42,976	53.4	23.7	25.8		
21. Tool steel.....	137	353	138	39.1	0.2	0.4	8,923	8,225	3,775	45.9	14.5	8.9		
22. All other finished, rolled, and drawn iron and steel.....	3,237	7,780	3,319	42.7	0.8	0.7	52,365	172,680	96,602	55.9	12.7	13.7		
TOTAL.....	315,224	1,760,056	1,166,957	66.3	3.7	5.6	855,345	3,202,704	1,035,040	32.3	10.0	10.1		
23. Scrap iron and steel.....	17,058	161,274			0.9	1.7	76,617	253,240			4.1	2.6		

¹ Less than one-tenth of 1 per cent.

CENSUS OF WAR COMMODITIES.

Table IV.—SUMMARY—STOCKS, CONSUMPTION AND REQUIREMENTS—Continued.

(Per cent distribution based on figures shown on the preceding pages.)

CLASS OF STEEL.	STOCKS.															
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Steel works, rolling mills, etc.	Wholesalers, jobbers, and dealers.	Railroad companies.	Shipyards.	War Department.	Agricultural implements, etc.	Motor vehicles, etc.	Bolts, nuts, etc.	Electric machinery, etc.	Engines, pumps, etc.	Machine tools.	Tools and hardware.	Other machinery.	Munitions and ordnance.	Fabrications.	Miscellaneous.
1. Ingots, blooms, billets, and slabs.....	96.9	(1)	0.4	0.4	0.3	0.1	0.1	(1)	0.1	0.4	0.3	0.2	0.3	0.1	0.1	0.3
2. Projectile steel.....	70.1						0.7		0.1	(1)	0.1		3.3	21.8	0.1	3.8
3. Sheet bars and tin-plate bars.....	98.1	(1)	(1)			0.1	(1)		(1)	(1)		1.1	0.1	(1)	(1)	0.5
4. Skelp, flue, etc.....	98.3	(1)	0.4			(1)		0.4	(1)			0.8			(1)	0.
5. Wire rods.....	66.8	0.7	(1)		0.3	0.7	1.4	14.8	0.9	0.2	0.5	1.6	0.3	0.1	0.7	11.0
6. Plates ($\frac{1}{4}$ inch and over).....	23.7	3.7	8.8	31.7	1.6	1.9	2.0	(1)	1.8	6.4	0.3	0.2	2.2	1.2	9.9	4.6
7. Sheets (under $\frac{1}{4}$ inch).....	20.4	5.4	2.6	1.0	0.9	3.8	11.8	5.2	6.5	7.7	0.4	3.2	2.7	0.9	2.7	24.8
8. Merchant bars and shapes under 3 inches (including spike, chain, bolt, and nut rods, horseshoe bars, etc.).....	22.5	12.9	7.7	3.3	0.5	14.4	4.2	7.9	1.7	2.8	1.6	4.3	4.2	0.5	3.5	8.1
9. Reinforced-concrete bars.....	24.9	26.4	8.6	0.4	2.8	(1)	3.7	(1)	0.3	0.1	(1)	0.5	0.2	0.1	31.4	0.5
10. Long angle splice bars.....	68.3	0.1	22.6	(1)	0.2	0.3	2.0		0.8	0.3	(1)	(1)	0.7		2.1	2.6
11. Structural shapes.....	26.1	4.5	6.6	23.2	1.7	1.7	1.5	(1)	1.2	3.4	0.4	0.1	3.1	0.6	21.5	4.4
12. Seamless tubes.....	14.5	7.3	29.2	0.9	0.3	2.2	9.3	0.1	0.8	18.9	0.4	0.1	2.3	0.4	0.6	12.7
13. Tubular products other than seamless tubes.....	25.5	38.9	3.4	1.2	0.3	2.1	3.1	(1)	1.3	4.3	0.3	0.9	4.8	(1)	1.8	12.0
14. Rails:																
50 pounds and over.....	15.1	0.8	76.0	0.5	3.2	(1)	0.1		0.2	0.1	(1)		0.1		0.3	3.4
Under 50 pounds.....	31.4	9.0	7.5	0.5	28.3	0.1	0.1		0.6	0.1	0.2		1.6		1.4	19.2
15. Rail joints, fastenings, and tie-plates.....	13.6	0.6	79.4	0.1	4.3	(1)	(1)		(1)	(1)	(1)		0.2	(1)	0.3	1.5
16. Tin plate.....	15.1	3.5	0.1	(1)	(1)	0.1	0.1	(1)	(1)	0.7	(1)	0.3	0.3	1.1	0.2	78.5
17. Barbed wire.....	49.6	14.3	18.0	(1)	13.1	0.1	(1)	0.1	(1)	0.4		0.6	0.1		0.6	3.1
18. Wire rope.....	31.8	7.3	2.9	5.3	0.7	0.5	24.0	1.9	1.4	0.3	2.7	0.8	2.7	(1)	0.3	17.4
19. Other wire products.....	55.0	11.3	1.3	(1)	0.7	1.4	1.9	5.0	0.4	0.4	0.2	2.1	1.0	0.2	0.7	18.4
20. Hoops, bands, and cotton ties.....	24.2	11.9	0.1	(1)	(1)	15.6	7.2	1.8	1.2	1.8	0.1	10.0	1.0	0.2	1.2	23.7
21. Tool steel.....	31.3	9.1	1.9	0.9	0.4	2.1	3.8	1.9	1.1	0.8	9.6	13.4	7.7	1.3	0.2	14.5
22. All other finished, rolled, and drawn iron and steel.....	18.3	3.7	2.7	0.3	1.1	10.7	18.5	4.6	3.2	2.5	6.7	4.5	8.4	1.3	0.8	12.7
TOTAL.....	43.6	6.3	10.9	5.3	1.2	3.6	3.4	2.2	1.4	2.5	0.8	1.5	2.2	1.4	3.7	10.0
23. Scrap iron and steel.....	76.3	0.9	7.8	0.3	0.3	1.9	0.7	0.5	0.4	2.5	0.8	0.7	1.6	0.3	0.9	4.1

CLASS OF STEEL.	CONSUMPTION AND REQUIREMENTS (TOTAL): 1918.															
	A	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
	Steel works, rolling mills, etc.	Railroad companies.	Shipyards.	War Department.	Agricultural implements, etc.	Motor vehicles, etc.	Bolts, nuts, etc.	Electric machinery, etc.	Engines, pumps, etc.	Machine tools.	Tools and hardware.	Other machinery.	Munitions and ordnance.	Fabrications.	Miscellaneous.	
1. Ingots, blooms, billets, and slabs.....	96.7	0.1	0.2	0.1	(1)	0.1	(1)	0.1	0.4	0.1	0.1	0.2	0.2	1.6	0.1	
2. Projectile steel.....	59.3				(1)	1.2	0.3	(1)	(1)	(1)	(1)	17.6	18.0	(1)	3.6	
3. Sheet bars and tin-plate bars.....	99.7	(1)			0.1	(1)		(1)		(1)	(1)	(1)	(1)	(1)	0.2	
4. Skelp, flue, etc.....	98.8	0.1			0.2		0.4				0.3	(1)			0.3	
5. Wire rods.....	80.9	(1)	(1)	0.1	0.2	0.6	11.3	0.2	0.1	0.1	1.4	0.1	(1)	0.7	4.3	
6. Plates ($\frac{1}{4}$ inch and over).....	18.0	3.5	31.3	0.3	1.5	3.4	(1)	0.9	13.8	0.2	0.2	1.8	1.2	15.8	7.7	
7. Sheets (under $\frac{1}{4}$ inch).....	8.8	1.1	1.3	0.1	4.0	24.4	2.1	5.5	9.2	0.5	4.0	3.2	0.5	4.6	30.8	
8. Merchant bars and shapes under 3 inches (including spike, chain, bolt, and nut rods, horseshoe bars, etc.).....	33.1	5.2	2.9	0.1	13.7	4.0	12.0	0.9	3.6	0.9	3.9	3.7	0.7	5.1	10.2	
9. Reinforced-concrete bars.....	2.7	18.1	14.8	0.3	0.6	7.5	0.1	1.8	1.0	0.1		0.6	0.1	51.4	0.9	
10. Long angle splice bars.....	82.1	11.8	0.5	(1)	0.1	1.1		0.3	0.4	(1)	0.7	0.7	(1)	0.6	1.7	
11. Structural shapes.....	30.0	3.2	18.0	0.1	0.8	1.1	(1)	1.1	2.4	0.2	0.2	1.9	0.5	34.6	5.9	
12. Seamless tubes.....	21.9	13.3	0.7	0.3	1.3	10.0	0.1	0.4	36.6	0.3	0.7	1.7	0.1	0.8	11.8	
13. Tubular products other than seamless tubes.....	2.2	5.7	3.3	0.2	6.7	0.9	0.3	4.6	16.2	1.3	2.6	8.3	0.1	5.0	42.6	
14. Rails:																
50 pounds and over.....	9.6	81.7	0.9	0.1		0.2		0.2	0.1	(1)		0.1	(1)	0.8	6.3	
Under 50 pounds.....	25.4	6.3	1.6	(1)	0.1	0.5		1.6	0.1	0.1		5.0		2.3	57.0	
15. Rail joints, fastenings, and tie-plates.....	1.9	94.5	0.3	(1)		0.2		(1)	(1)	(1)		0.2		0.3	2.6	
16. Tin plate.....	2.0	0.1	(1)	0.8	0.1	0.5	(1)	(1)	0.4	(1)	0.4	0.2	1.6	0.6	93.1	
17. Barbed wire.....	79.0	2.4	(1)	(1)	0.5	0.2	0.2		0.3	(1)	0.1	0.1		0.7	16.6	
18. Wire rope.....	0.8	5.4	18.3	0.3	1.6	19.5	1.8	2.6	1.9	21.0	5.0	7.6	0.3	1.3	12.6	
19. Other wire products.....	50.5	0.5	(1)	(1)	1.5	0.9	5.3	0.5	0.2	0.2	2.3	0.7	0.3	1.4	35.7	
20. Hoops, bands, and cotton ties.....	42.9	(1)	(1)	(1)	10.1	4.4	1.7	1.3	0.7	0.1	11.7	1.0	0.1	0.2	25.8	
21. Tool steel.....	10.9	1.7	1.3	0.7	2.3	5.2	1.9	1.4	1.3	24.8	23.9	13.2	1.1	0.4	8.9	
22. All other finished, rolled, and drawn iron and steel.....	9.1	2.7	0.8	0.6	8.8	38.0	4.0	2.9	2.2	4.8	3.3	7.4	1.1	0.7	13.7	
TOTAL.....	55.5	5.3	4.8	0.1	2.7	4.1	2.3	0.8	3.1	0.5	1.3	2.4	1.4	5.6	10.1	
23. Scrap iron and steel.....	87.0	1.0	0.1	0.3	1.6	0.8	0.2	0.3	1.6	0.8	0.3	1.4	0.2	1.7	2.6	

¹ Less than one-tenth of 1 per cent.

WAR INDUSTRIES BOARD
BERNARD BARUCH, CHAIRMAN
IN COOPERATION WITH THE
DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
SAM. L. ROGERS, DIRECTOR

STATISTICS OF IRON AND STEEL PRODUCTS

EUGENE F. HARTLEY
CHIEF STATISTICIAN FOR MANUFACTURES

NAME OF ESTABLISHMENT.....
LOCATION OF ESTABLISHMENT: State....., City or town.....
ADDRESS OF GENERAL OFFICE.....
NATURE OF BUSINESS..... Class A, B, or C.....
(Such as "tube mill," "jobber," "tool manufacturer," etc.)
IF A COMBINED REPORT, ENUMERATE PLANTS AND ESTABLISHMENTS COVERED BY THIS REPORT.
NAMES AND ADDRESSES:

The following classes of establishments are asked to report:
A. Steel works, rolling mills, tube mills, forging shops, wire-drawing mills, tinplate mills, and all other manufacturers of the products mentioned in Inquiry I of this questionnaire.
B. Wholesalers, jobbers, dealers, warehouses, and supply houses carrying stocks of the products listed under Inquiry I of this questionnaire.
C. Consumers of these products or establishments using them in the manufacture of more highly finished products.

A census of capacity and stocks of iron and steel products, accurate data concerning which are absolutely necessary to the proper conduct and furtherance of the war, is authorized by the Secretary of Commerce under the provisions of section 8 of the organic act creating the Department of Commerce and Labor, as follows:
"That the Secretary of Commerce shall, from time to time make such special investigations and reports as he may be required to do by the President, or by either House of Congress, or which he himself may deem necessary and urgent."
And the special authority of the President of the United States, under date of April 8, 1918, as follows: "The Secretary of Commerce is hereby authorized to cause the compilation by the Bureau of the Census of such statistical data within its lawful scope and relating to the supply, production, and consumption of commodities as may be needed and be called for by any branch of the Federal Government in connection with the conduct of the war."
Information regarding individual concerns will be kept strictly confidential, but aggregate statistics may be placed at the disposal of the trade.
Important.—The present war emergency demands the patriotic cooperation of all interests that centralized information may be available to permit immediate and complete use of all facilities, the conservation of raw materials and efficient distribution thereof. **Accurate and prompt** replies are imperative.

SAM. L. ROGERS,
Director of the Census.

CERTIFICATE

THIS IS TO CERTIFY that the information contained in this schedule is complete and correct to the best of my knowledge and belief.

(Signature of person furnishing the information.)

(Title and address.)

Date,, 1918.

c—4216

I. Stocks on Hand or in Transit to Establishment.

Report stocks as of September 1, 1918.

(a) This inquiry is designed primarily to show the stocks of iron and steel available for the manufacture and fabrication of finished iron and steel commodities, tools, machines, and constructions as a basis of war program.

The following classes of establishments are asked to report:

- A. Steel works, rolling mills, tube mills, forging shops, wire-drawing mills, tinplate mills, and all other manufacturers of the products mentioned in Inquiry I of this questionnaire.
B. Wholesalers, jobbers, dealers, warehouses, and supply houses carrying stocks of the products listed under Inquiry I of this questionnaire.
C. Consumers of these products or establishments using them in the manufacture of more highly finished products.
(b) All classes of establishments: Report stocks in possession in your own mills, works, warehouses, storerooms, and other space owned or rented by you in the United States and Canada whether you have title to the stocks or not. Establishments will not report stocks already in process of manufacture into more highly finished forms. Include stocks in transit to you.
(c) Establishments of the first (A) and second (B) classes, that is manufacturers of the products listed under this inquiry and dealers in the same, should not report stocks sold and in transit from their mills or warehouses as these will be reported by the consignee or purchaser.

State all tonnage in net tons of 2,000 pounds.

	TONS.
1. Ingots, blooms, billets, and slabs.....	
2. Sheet bar and tinplate bar.....	
3. Skelp, flue, etc.....	
4. Wire rods.....	
5. Projectile steel.....	
6. Plates (½ inch and over in thickness).....	
7. Sheets (under ½ inch in thickness).....	
8. Merchant bars and shapes under 3 inches (including spike and chain rods, bolt and nut rods, horseshoe bars, etc.).....	
9. Reinforced-concrete bars.....	
10. Long angle splice bars.....	
11. Structural shapes.....	
12. Seamless tubes.....	
13. Tubular products other than seamless tubes.....	
14. Rails: 50 pounds and over..... Under 50 pounds.....	
15. Rail joints, fastenings, and tie-plates.....	
16. Tinplate.....	
17. Barbed wire.....	
18. Wire rope.....	
19. Other wire products.....	
20. Hoops, bands, and cotton ties.....	
21. Tool steel.....	
22. All other finished, rolled, and drawn iron and steel (specify the principal commodities and tonnage; do not include pig iron, castings, forgings, or parts finished or in process).....	
23. Scrap iron and steel.....	

(2)

c—4316

(a) In column I, state the total amount of iron and steel of each class used during the six months ending June 30, 1918.

(b) In column II, state the total amount of iron and steel of each class used for Government contracts or subcontracts, or subcontracts. Include only iron and steel used during the first six months in filling Government orders, contracts, or subcontracts. This should include contracts for any branch of the United States Government or any foreign Government. Do not include iron and steel used in the manufacture of products that eventually were bought by the Government, but not directly covered by Government contracts or subcontracts.

(c) In column III, state the estimated requirements of iron and steel of each class for the period, July 1 to December 31, 1918, to keep plants running at full capacity. Include that already used since July 1.

(d) In column IV, state the estimated requirements of iron and steel of each class to fill Government orders, contracts, or subcontracts during the six months, July 1 to December 31, 1918. Include only requirements for subcontracts which are actually looked prior to September 1, not those under negotiation or anticipated. Include iron and steel used, except those excluded below in Item 23, on contracts since July 1, as well as estimated amount necessary on contracts to December 31, 1918.

State all tonnage in net tons of 2,000 pounds.

State all tonnage in net tons of 2,000 pounds.

CLASS OF STEEL.	IRON AND STEEL USED FOR SIX MONTHS ENDING JUNE 30, 1918.				IRON AND STEEL REQUIREMENTS ESTIMATED FOR THE SIX MONTHS ENDING DECEMBER 31, 1918.			
	(I) Total quantity.	(II) Quantity used for Government contracts.	(III) Total quantity.	(IV) Quantity of Government contracts.	(I) Total quantity.	(II) Quantity used for Government contracts.	(III) Total quantity.	(IV) Quantity of Government contracts.
1. Ingots, blooms, billets, and slabs.....								
2. Sheet bar and tinplate bar.....								
3. Skelp, flue, etc.....								
4. Wire rods.....								
5. Projectile steel.....								
6. Plates (½ inch and over in thickness).....								
7. Sheets (under ½ inch in thickness).....								
8. Merchant bars and shapes under 3 inches (including spike and chain rods, bolt and nut rods, horsehoe bars, etc.).....								
9. Reinforced concrete bars.....								
10. Long angle splice bars.....								
11. Structural shapes.....								
12. Seamless tubes.....								
13. Tubular products other than seamless tubes.....								
14. Rails: 50 pounds and over..... Under 50 pounds.....								
15. Rail joints, fastenings, and tie-plates.....								
16. Tinplate.....								
17. Barbed wire.....								
18. Wire rope.....								
19. Other wire products.....								
20. Hoops, bands, and cotton ties.....								
21. Tool steel.....								
22. All other finished, rolled and drawn iron and steel (specify the principal commodities and tonnage; do not include pig iron, castings, forgings, or parts finished or in process).....								
23. Scrap iron and steel.....								

Establishments of Class C (consumers) will report below the production of principal articles, in which material listed in inquiries I and II in some form is an important item of raw material, from January 1 to June 30, 1918.

(a) Include only articles in which material listed in inquiries I and II in some form is an important item of raw material.

(b) List a sufficient number of articles to represent 90% or more of your consumption of the material listed in inquiries I and II.

(c) Include as nearly as possible quantities of articles actually completed for the market whether on contract or not, and whether delivered or not, during the six months period, January 1 to June 30, 1918.

State unit of measure commonly used in each case, such as 200-pound kegs of nails, etc.

State unit of measure commonly used in each case, such as 200-pound kegs of nails, etc.

NAME OF ARTICLE.	PRODUCTION, JAN. 1-JUNE 30, 1918.